



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 03-050-F	FOR FURTHER ACTION		See Form PCT/PEA/416
International application No PCT/US2005/012180	International filing date (day/month/year) 11.04.2005	Priority date (day/month/year) 12.04.2004	
International Patent Classification (IPC) or national classification and IPC G07C5/00			
Applicant NNT, INC. et al.			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p style="margin-left: 20px;">a <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows:</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p style="margin-left: 20px;">b <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 11.11.2005		Date of completion of this report 21.03.2006	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Heß, D Telephone No. +49 89 2399- <div style="text-align: right;">  </div>	

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/US2005/012180

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-24 as originally filed

Claims, Numbers

1-20 as originally filed

Drawings, Sheets

1/3-3/3 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/US2005/012180

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-20
	No: Claims	
Inventive step (IS)	Yes: Claims	1-20
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-20
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

V.

1. Reference is made to the following document:

D1: WO 03 077 205 A2

2. The subject-matter of independent claims 1, 11 and 19 is deemed to meet the requirements of Article 33(1) PCT for the following reasons.

Document D1 is regarded as being the closest prior art to the subject-matter of the present application. Using the wording of the common features of claims 1, 11 and 19 as far as possible, document D1 (cf. in particular page 3, paragraph 21 to page 9, paragraph 38; Figs. 1, 2) discloses (the references in parentheses applying to this document):

A vehicle information system (100) comprising:

- a computing system (105) adapted to run an operating system (paragraph 48) and a plurality of applications (paragraphs 28 and 38),

- at least one vehicle application (108, 110) operable to provide policy processing of at least one parameter (such as data relating to e.g. fleet management, vehicle diagnostics, etc.), the at least one vehicle application being executable by the computing system (p.4, l.8-14);

- an access-layer application (202a) executable by the computing system (paragraph 32), the access-layer application having a first or application program interface ("API"; 106) adapted to communicate with the vehicle application (paragraph 30),

- a vehicle-application database (202b) operable to house information for processing at least one parameter passed *to the* first or application program interface (paragraphs 33 and 34), the access-layer application (202a) operable *to* obtain from the vehicle-application database (202b) the information for processing the at least one parameter (p.7, l.8-12), and operable to process the at least one parameter as a function of the information obtained from the vehicle-application database (p.7, l.5-8) so as to pass the processed at least one parameter *to* the first or application program interface (106) in a form commensurate with the first or application program interface (p.8, l.13-22); and

a communication adapter (202c) operable to pass the at least one parameter to a vehicle controller (paragraphs 35 and 36).

Thus, the subject-matter of the common technical concept of independent claims 1, 11 and 19 differs from this known vehicle information system substantially in that the access layer application is additionally provided with a second or operating-system-abstraction interface which is adapted to communicate with the operating system and from which the at least one parameter is passed to the vehicle controller, wherein the processed parameter is passed between the first and second interfaces in a form commensurate with both these interfaces.

Since none of the available prior art documents shows the common technical concept of the independent claims, the subject-matter of claims 1, 11 and 19 is novel and thus meets the requirements of Article 33(2) PCT.

The problem to be solved by the present invention may be regarded as to provide a standardized infrastructure which supports portable, cross-platform vehicle applications and is independent of the specifications of the individual components of the vehicle information system.

The solution to this problem proposed in independent claims 1, 11 and 19 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

While document D1 (cf. paragraph 48 bridging pages 11 and 12) itself does contain an indication to additionally provide a second or operating-system-abstraction interface so as to make the operation of the vehicle applications independent of a particular operating system, it lacks any information with respect to the processing of the at least one parameter. More specifically, document D1 is silent that the parameter is processed based on information stored in the vehicle-application database such that it can be passed between the first or application program interface and the second or operating-system-abstraction interface in a form commensurate with both these interfaces.

Accordingly, the person skilled in the art who starts out from document D1 and tries to find

a solution to the problem mentioned above might well additionally include in the access-layer application a second or operating-system-abstraction interface respectively adapted to communicate with the operating system. However, he will not modify the vehicle information system known from document D1 (Fig.2) such that the vehicle-application database (202b) includes information based on which the at least one parameter is processed in such a way that it can be passed over these two interfaces in a form corresponding to both.

The remaining documents cited in the international search report are more remote than document D1 from the common concept of the independent claims 1, 11 and 19.

Therefore, since the skilled person would not have arrived at the subject-matter of the independent claims in an obvious way in view of the available prior art, the subject-matter of claims 1, 11 and 19 is also based on an inventive step and thus complies with the requirements of Article 33(3) PCT.

3. Claims 2 to 10, 12 to 18 and 20 are respectively dependent on claims 1, 11 and 19 and as such also meet the requirements of the PCT with respect to novelty and inventive step.